

T09D01 – (9.1) Intro to Redox

Name.....

1. 9.1.1 Define oxidation and reduction in terms of electron loss and gain. (1)
 - a. How was oxidation originally defined:

 - b. How do we now define oxidation and reduction?

 - c. How can you remember these simple definitions?

2. 9.1.2 Deduce the oxidation number of an element in a compound. (3)

- a. Record the basic rules for assigning oxidation numbers:

- i.

- ii.

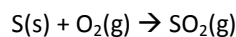
- iii.

- iv.

- v.

- vi.

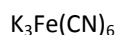
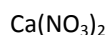
- b. Determine the oxidation number for each element in the following reaction, then show the oxidation and reduction half-reactions:



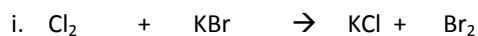
3. 9.1.3 State the names of compounds using oxidation numbers. (1)

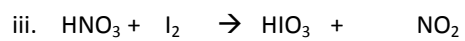
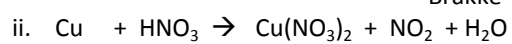
4. 9.1.4 Deduce whether an element undergoes oxidation or reduction in reactions using oxidation numbers. (3)

- a. How can it be determined whether a reaction is considered to be a Redox equation?



- b. For each of the following reactions, first determine the oxidation state, then write the oxidation and reduction half reactions for each:





- c. Provide an example for an element which is both oxidized and reduced. What is this known as?